

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY



(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 06 MAR 2006

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Applicant's or agent's file reference PRAFF 38/WO	FOR FURTHER ACTION See Form PCT/PEA416	
International application No. PCT/EP2004/014035	International filing date (day/month/year) 09.12.2004	Priority date (day/month/year) 12.12.2003
International Patent Classification (IPC) or national classification and IPC A61K7/06		
Applicant TIENSE SUIKERRAFFINADERIJ N.V. et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 4 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 07.07.2005	Date of completion of this report 02.03.2006	
Name and mailing address of the International preliminary examining authority:  European Patent Office - Gitschiner Str. 103 D-10958 Berlin Tel. +49 30 25901 - 0 Fax: +49 30 25901 - 840		Authorized Officer Alvarez Alvarez, C Telephone No. +49 30 25901-343 

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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-26 as originally filed

Claims, Numbers

1-24 received on 07.07.2005 with letter of 06.07.2005

Drawings, Sheets

1/1 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-24
	No: Claims	
Inventive step (IS)	Yes: Claims	6-8, 20, 22-24
	No: Claims	1-5, 9-19, 21
Industrial applicability (IA)	Yes: Claims	1-24
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

and /or

2. Non-written disclosures (Rule 70.9)

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

D2: FR-A-2 795 953

D3: FR-A-2 795 954

D4: WO 02/055053 A

D5: WO 02/055034 A

1. Novelty

D2, D3 and D4 disclose cosmetic compositions containing derivatized inulins.

D5 discloses cosmetic compositions containing inulins and at least another polysaccharide.

D2-D5 do not disclose the use of inulin or oligofructose as rinse-off conditioners.

(The relevant passages of the prior art documents D2-D5 can be consulted in our former communication).

The subject-matter of claims 1-24 is therefore new (Article 33(2) PCT).

2. Inventive activity of the subject-matter of claims 1, 13 and 17

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-5, 9-12 and 21 does not involve an inventive step in the sense of Article 33(3) PCT.

The document D2 is regarded as being the closest prior art to the subject-matter of

independent claims 1, 13, 17 and 22 and discloses conditioning rinse-off compositions for keratinic materials (hair and skin) comprising amine-inulin as aid conditioning agent in amounts from 0.05 to 10% by weight referred to the weight of the total composition. The compositions disclosed in D2 are free from the ingredients i), ii) and iii) mentioned in claims 1, 13 and 17 (D2, claims 1, 7, 23, 26 and 27; examples 4 and 5). Note that the cationic conditioning ingredients excluded by claims 1, 13 and 17 are only the cationic polymeric conditioning materials, that means conditioning oils as claimed in D2, claim 8 are not excluded by the present application.

The subject-matter of claims 1, 13 and 17 differs from this known D2 in that the inulin is not derivatized.

The compositions claimed by the present application present conditioning properties as shown in example 3. However, no advantageous effects have been reported in the claimed compositions in comparison with the compositions of the prior art.

The problem to be solved by the present application can be regarded thus as the provision of further conditioning rinse-off compositions for keratinic materials comprising from 0.1 to 10% by weight of a inulin-type compound and free from ingredients i), ii) and iii) as mentioned in claim 1.

The proposed solution is the use of non derivatized inuline or oligofructose.

D5 discloses cosmetic compositions containing non derivatized inulines as thickeners in rinse-off cosmetic compositions (D5, claim 1, 22, 28 and 29; page 2, lines 2-5, 19-21, 29-30; page 3, lines 5-6; page 1, lines 13-15). D5 mentions that the inulines improve the performances of the cosmetic compositions including its conditioning properties.

This improvement of conditioning properties is also claimed in D2 for the derivatized inulines (D2, page 2, lines 1-18).

Therefore the skilled person receives from D5 the incentive to use non derivatized inulines as alternative aid conditioners to the amino inulines disclosed by D2.

The subject-matter of claims 1, 13 and 17 is considered therefore not inventive.

The additional technical features of claims 2-5, 9-12, 14-16, 18, 19 and 21 are also included in the disclosure of D2 (see citations above), therefore they are considered as obvious modifications that the skilled person would consider without involving any inventive activity

The subject-matter of dependent claims 2-5, 9-12, 14-16, 18, 19 and 21 is considered therefore not inventive.

3. Inventive activity of the subject-matter of claim 22

D2 is also considered as closest prior art for examining claim 22.

D2 discloses the use of amino-inulin as substitute of conditioning materials (D2, compare examples 4 and 5 with 1-3).

The subject-matter of claim 22 differs from D2 in that the inulin used is a non derivatized inulin.

The problem to be solved by the subject-matter of claim 22 is providing further uses for the non derivatized inulins and oligofructoses.

The proposed solution is their use as rinse-off conditioners.

Document D5, which is the only cited document disclosing the use of non derivatized inulines, does not mention the possibility of using the inulins as conditioning agents.

Moreover, hair conditioning properties are often linked to the existence of positive charges in the molecule of the conditioner.

Therefore, the skilled person does not receive from D5 any information about the possibility of the use of non derivatized inulines as conditioning agents, and he/she would

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also not consider obvious that non cationic molecules would possess the properties that are typically linked to cationic charges.

The subject-matter of claim 22 is considered therefore inventive.

Claims 23 and 24 are dependent on claim 22 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Re Item VI

The document EP-A-1380284 (D1) with filing date 03.07.2003 will be relevant under Art. 54(3) for the examination of the novelty in case this application enters in the European regional phase.

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Amended Claims
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CLAIMS

1. Use of an inulin-type fructan for the manufacture of a cosmetic rinse-off composition for the treatment of the hair and/or the skin, characterised in that the rinse-off composition, apart from conventional ingredients of rinse-off compositions in conventional amounts, comprises from 0.10 to 10% of the inulin-type fructan being oligofructose or inulin (% in weight percent dry matter, calculated on the total weight of the rinse-off composition), and is free from (i) cationic polymeric conditioning agents, (ii) terpolymers composed of a monomer consisting of a carboxylic acid containing an α,β -mono-ethylenic unsaturation, a non-ionic monomer bearing a urethane group, and a non-surfactant monomer with mono-ethylenic unsaturation which is different from the first mentioned monomer, (hereinafter "terpolymers"), and (iii) polysaccharides that are different from the inulin-type fructan.

2. Use according to claim 1, characterised in that the rinse-off composition is also free from monosaccharides and from di- and oligosaccharides that are different from the inulin-type fructan, apart from fructose, glucose, sucrose and difructose dianhydride.

3. Use according to claim 1 or claim 2, characterised in that the inulin-type fructan is used as conditioning agent.

4. Use according to any one of claims 1 to 3, characterised in that the inulin-type fructan is used as a complete substitute for cationic polymeric conditioning agents in conventional rinse-off compositions.

5. Use according to anyone of claims 1 to 4, characterised in that the rinse-off composition contains the inulin-type fructan at a concentration from 1 to 10%.

6. Use according to anyone of claims 1 to 5, characterised in that the inulin-type fructan is oligofructose.

7. Use according to claim 6, characterised in that the oligofructose has a DP ranging from 2 to 9.

8. Use according to claim 6, characterised in that the oligofructose as a DP ranging from 3 to 5.

5 9. Use according to anyone of claims 1 to 5, characterised in that the inulin-type fructan is inulin.

10. Use according to claim 9, characterised in that the inulin has a DP ranging from 2 to 100.

10 11. Use according to claim 9, characterised in that the inulin-type fructan is chicory inulin with a DP ranging from 2 to 70.

12. Use according to claim 9, characterised in that the inulin-type fructan is inulin from agave, Jerusalem artichoke or dahlia.

15 13. Process for the manufacture of a cosmetic rinse-off composition, characterised in that 0.10% to 10% weight (calculated on the total weight of the rinse-off composition) of an inulin-type fructan being oligofructose or inulin defined in anyone of claims 6 to 12, water and one or more
20 other components constituted by one or more ingredients in conventional amounts of conventional rinse-off compositions, with the exception of (i) cationic polymeric conditioning agents, (ii) terpolymers as defined in claim 1, and (iii) polysaccharides that are different from the inulin-type
25 fructan, are co-mixed.

14. Process according to claim 13, characterised in that
neither the inulin-type fructan component nor said other components include monosaccharides or di- and
oligosaccharides that are different from the inulin-type
30 fructan, apart from fructose, glucose, sucrose and difructose dianhydride.

15. Process according to claim 13 or claim 14, characterised in that the rinse-off composition contains the inulin-type fructan at a concentration from 1 to 10%.

16. Process according to any one of claims 13 to 15, characterised in that it involves co-mixing of one or more components or part of said components with one or more premix compositions that contain the remaining components and/or the complementary part of the former components, or co-mixing of two or more pre-mix compositions.

17. Cosmetic rinse-off composition, characterised in that it contains from 0.10% to 10% weight (calculated on the total weight of the rinse-off composition) of an inulin-type fructan being oligofructose or inulin defined in any one of claims 6 to 12, water and one or more other components constituted by one or more ingredients in conventional amounts of conventional cosmetic rinse-off compositions, with the exception of (i) cationic polymeric conditioning agents, (ii) terpolymers as defined in claim 1, and (iii) polysaccharides that are different from the inulin-type fructan.

18. Cosmetic rinse-off composition according to claim 17, characterised in that the rinse-off composition is also free from monosaccharides and from di- and oligosaccharides that are different from the inulin-type fructan, apart from fructose, glucose, sucrose and difructose dianhydride.

19. Cosmetic rinse-off composition according to any one of claims 17 or 18, characterised in that the rinse-off composition contains the inulin-type fructan at a concentration from 1 to 10%.

20. Cosmetic rinse-off composition according to any one of claims 17 to 19, characterised in that the inulin-type fructan is oligofructose as defined in any of claims 6 to 8.

21. Cosmetic rinse-off composition according to any one of claims 17 to 19, characterised in that it the inulin-type fructan is inulin as defined in any of claims 9 to 12.

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22. Use of an inulin-type fructan in a cosmetic rinse-off composition for the treatment of the hair and/or the skin, characterised in that the inulin-type fructan is oligofructose or inulin defined in any one of claims 6 to 12, and is used as a rinse-off conditioner.

23. Use according to claim 22, characterised in that the inulin-type fructan is used as a complete substitute for cationic polymeric conditioning agents in conventional rinse-off compositions.

24. Use according to claim 22 or claim 23, characterised in that the rinse-off composition is a composition defined in any one of claims 1 and 17 to 21.